

**Information Disclosure Statement by Applicant:**

P. 1, Please add, after the last cite, the following:

--4770212/Wienick/09-1988/ALL  
--2856992/Bartels/10-1958/ALL  
--3015469/Falk/01-1962/ALL  
--3276480/Kennedy/10-1966/ALL  
--2796889/Treganowan/06-1957/ALL  
--4228822/Fisher/10-1980/ALL  
--3204664/Gorchev/09-1965/ALL  
--5385505/Sharpe/01-1995 /ALL  
--2917077/Ziege/12-1959/ALL

**REMARKS – General**

Applicant has amended his Information Disclosure Statement to reference and include multiple patents that were not included in the original submittal.

Applicant has submitted corrected drawings as requested in the last office action.

Finally, Applicant has amended claims 1-4 as requested and submits for further discussion why this patent is not obvious over Ziege based on major improvements and unexpected results from the Applicant invention over the prior art references that allegedly cause this invention to be unpatentable based on obviousness.

Claims 1-5 of the specification were rejected as being unpatentable under 35 U.S.C. 103 as disclosed by Gorchev, 3204654 and Sharpe, 5385505 based on "obviousness". Applicant has canceled Claim 1 which is acknowledged by Applicant to be unpatentable under the two previously cited patents and provided new Claims 1-4 which were previously 2-5 to clarify the novelty of this invention by highlighting its major improvement and unexpected results over Gorchev, Sharpe and Ziege, 2917077. Applicant, consequently, requests reconsideration and withdrawal of the obviousness objection based on the following: the Applicant invention provides a significant operational improvement and unexpected results not seen in the prior art including Ziege – namely: 1) The structure of the venturi valves already incorporates a dampening device for its floating cone so the insertion of a dampening ring was not obvious; and 2) the unexpected result of the specially inserted ring.

1. **Rejection of Claims 2-5 as being Obvious under 35 U.S.C. 112 is Overcome by Recognition of Different Prior Art that does not Preclude this Invention based on the Prior Art.**

The invention for venturi valves is not obvious due to the fact the valves already incorporate a dampening device in their structure and due to their unique nature and specialized use in laboratories, hospital rooms and critical rooms. The use of venturi valves in laboratory, hospital and other critical room airflow controls is based on their precise measurement of airflow and the ability to maintain constant airflow in critical

rooms even while duct static air pressure in the ducts above the room may change. The venturi valves utilize free floating pressure independent spring loaded cones in their internal structure that adjust to duct static pressures automatically to ensure the constant flow of air into these rooms. These valves have been utilized in air handling functions and more specifically, in laboratories for over 25 years. Gariss, 42156217. The valves have always had an internal dampening mechanism to dampen airflow which is the spring loaded cone. Thus, the insertion of a specially manufactured ring as disclosed in this invention would not have been obvious to users in the art. While ring insertions are not exclusive to air handling systems, the use of this ring in this particular specialized arena of laboratories is unique and unobvious. The fact that these valves have been used in over thousands of installations worldwide without this invention further supports the point.

By definition, then, it would not have been obvious to a person "skilled in the art" of Ziege's excess flow control system involving most likely, liquids, to contemplate this dampening device in the context of a specialized and unique product universe involving venturi valves used in laboratories which already include a dampening spring device to insert this ring. Consequently, the statement that "which details (involving the Applicant invention) are not exclusive to air handling systems...it would have been obvious to modify the venturi valve airflow damping device...in order to provide a system that permits of dampening of valve motion" on p. 6 of the office action is respectfully, inaccurate. It follows then, that the obviousness objection to inserting a specially manufactured ring, in the context of a venturi valve environment is overcome.

Using the obviousness logic employed here, a patent should not have been issued to Ziege because it would have been obvious to one skilled in the art of controlling car engines with dampening piston devices "which details are not exclusive to car engineers" that such a dampening device could be inserted in Ziege's invention in the fluid control device. The fact that Ziege could be issued a patent in the face of prior patents for dampening devices such as those in automobile engineers strongly indicates that the US Patent and Trademark Office has determined that obviousness objections for dampening devices should be limited to the product spheres in which those items exist. Therefore, the obviousness rejection that is based upon the erroneous assumption that a similar device is used in a fluid control system also includes a similar device in the venturi valve/laboratory airflow controls context is overcome and applicant, consequently, requests reconsideration and withdrawal of the obviousness objection.

## **2. Rejection of Claims 2-5 as being Obvious Under 35 U.S.C. 112 are Overcome By Unexpected Results and Major Operational Improvements from Specially Inserted Ring**

The insertion of the ring results in the unexpected result of not just dampening the movement of the cone assembly but preventing the valve and cone assembly from going into oscillation or resonance during periods of extreme duct dynamics. In certain situations, where duct pressures in the laboratory or hospital duct system vary dramatically, venturi valves have been known to "bang" in which they enter a situation where the spring loaded cone repeatedly oscillates in response to changing duct pressures in a manner that "bangs" the cone against the extremity of the venturi valve

which in turn, results in interruption of constant airflow, disruptive noise, and damage to the structure of the venturi valve. In these situations, the spring loaded cone is not dampened at all by the existing dampening device in the valve but the insertion of the ring prevents this extreme oscillation in most instances resulting in an unexpected improvement and major operational improvement to the function of the venturi valve during these specific situations. This feature thus deals with unrecognized problems that are not apparent or resolved with Ziege since the Ziege invention is limited to dampening the movement of a regulator to prevent excess flow control and does not contemplate situations where the venturi cone is oscillating in an uncontrollable manner. The result of this system guarantees consistent airflow in the face of extreme duct disturbances, and thus the safety of occupants and users of critical room laboratories and hospital isolation rooms.

**CONCLUSION:**

For all of the foregoing reasons, applicant submits that the specification and claims are now in the required format and that all of its claims are patentable over the prior art. Therefore, applicant respectfully asks for allowance of this patent.

**CONDITIONAL REQUEST FOR CONSTRUCTION ASSISTANCE:**

Applicants have amended the specification and claims of this application so that they are proper, definite, and define novel structure that is also non-obvious. If, for any reason this application is not believed to be in full condition for allowance, applicant respectfully requests constructive assistance and suggestions of the Examiner pursuant to M.P.E.P. § 706.03(d) and §707.07(b) in order that the undersigned can place this application in allowable condition as soon as possible and without need for further proceedings.

Very Truly Yours,



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**CERTIFICATE OF FACSIMILE**

I certify that on date set forth above, this document was faxed to the USPTO at its authorized number to receive official correspondence: 571-273-8300

  
Gerahyn Buhs, TRIATEK, Inc.

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